Oklahoma

Current Farm Economics

Special Article—Seasonal Variation and Differentials in the Prices of Spring Lambs and Lambs

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DIVISION OF AGRICULTURE

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The Agricultural Situation

GENERAL

Business Activity

Under the pressure of rising incomes, economic activity continued at a high level at midyear. At a seasonally adjusted rate of $343.8 billion in June, personal income was $7.9 billion above January and nearly $1 billion above May.

Expenditures for new plant and equipment continued to rise in both the durable and non-durable manufacturing industries.

Industrial production in June remained steady. Large increases in production of electrical machinery, fabricated metal products and minerals were offset by declines in petroleum, transportation equipment and non-electrical machinery.

Employment in June was about the same as a year ago but was up 1,326,000 from May. Increases were registered in both the agricultural and non-agricultural sectors. Average weekly wages in June for manufacturing industries reached $82.59 compared with $81.78 in May and $79.19 in June 1956.

Wholesale prices rose during June because of increases in the prices of processed foods other than dairy products. Wholesale prices of fruits, vegetables, grains, livestock, and live poultry registered declines.

Farm Income and Prices

The index of prices received for crops dropped from 244 to 241 percent of the 1910-14 average. Commercial vegetables, feed grains and food grains contributed to the decline. On the other hand, cotton experienced a rise from 266 to 270 percent of the 1910-14 average.

Prices of livestock continued the rise begun at the start of the year. The most significant increase occurred in meat animal prices.

Prices paid by farmers remained about the same. A rise in the prices paid for family living offset a decline in the prices paid for production items.

The parity ratio has remained steady at 82 for the past three months but is 4 points below the level attained in June 1956.—**John Franzmann.**

CROPS

Wheat

The Department of Agriculture announced that carryover stocks of wheat in all positions on July 1, 1957 amounted to 905 million bushels. This was the fourth largest on record, exceeded only by the preceding three years. Prior to 1954 the record in season-end holdings was 630 million bushels on July 1, 1942.

The present carryover represents a reduction of 128 million or 12 percent from the 1,033 million bushels held a year ago (Below). The reduction in carryover stocks during 1956-57 was the first sizable decrease in July 1 holdings since 1951-52. During the previous crop year, carryover stocks were reduced about 3 million bushels from the all-time record of 1,036,178,000 bushels on July 1, 1955.

Carryover Stocks of Wheat, United States, 1936-1957

Year (July 1)	Carryover (1,000 bushels)	Year (July 1)	Carryover (1,000 bushels)
1936	140,433	1947	83,837
1937	83,167	1948	195,943
1938	153,107	1949	307,285
1939	250,015	1950	424,714
1940	279,721	1951	399,871
1941	384,733	1952	255,978
1942	630,775	1953	605,544
1943	618,897	1954	933,506
1944	316,555	1955	1,036,178
1945	279,180	1956	1,033,415
1946	100,086	1957	905,240

Large exports account for the major share of the reduction in carryover. Exports of wheat and flour during the marketing year ending June 30, 1957 are expected to total about 535 million bushels. This would compare with 346 million bushels a year earlier. The previous record high was 504 million bushels exported in 1948. The large exports are due primarily to special export programs such as Public Law 480 and to an increased demand from Europe as a result of short crops in 1956.

Estimates on wheat supplies for the 1957-1958 marketing year with comparison for the three preceding years follow:

Years	Carryover (1,000 bu.)	Crop (1,000 bu.)	Imports* (1,000 bu.)	Total (1,000 bu.)
1954-55	933,506	983,900	4,200	1,921,606
1955-56	1,036,178	934,731	9,900	1,980,809
1956-57	1,033,415	997,207	8,000	2,038,622
1957-58	905,240	940,093	5,000	1,850,333

*Does not include imports for milling-in-bond and export as flour.

On the basis of the carryover report issued during the last week of June, along with the July crop estimate, wheat supplies for 1957-58 in the United States will be 1,850,333,000 bushels or about 9 percent below the record total of 2,038,622,000 bushels in 1956-57. Total domestic disappearance for 1957-58 is estimated at 600 million bushels. This would leave 1,250 million bushels for export during the marketing year and carryover at the end of the year. Assuming exports of 400 million bushels, the carryover on July 1, 1958 would total 850 million bushels, about 55 million less than on July 1, 1957.

Marketing quotas will be in effect for the 1958 wheat crop. Final results of the June 20 referendum in the 36-state commercial wheat-producing area show 86.2 percent of 235,039 farmers voting favored marketing quotas for the 1958 crop. With the approval of quotas, producers in commercial wheat states who stay within the acreage allotted for their farms will be eligible for the full level of price support which is set at a minimum national average of $1.78 per bushel.—**Nellis A. Briscoe.**

Cotton

Approximately 14.2 million acres of cotton were in cultivation on July 1, 1957. This compares with the acreage allotments for all kinds of cotton of about 17.7 million acres and about 16.8 million acres in cultivation a year ago. This figure is smaller than harvested acreage for any year since 1878. Approximately 3 million acres of the 17.6 million acreage allotment for upland cotton were put in the acreage reserve program for 1957. Production was estimated on August 1 at 11.9 million bales for the U. S. and 245,000 bales for Oklahoma. Both estimates are below last year's production.

The supply of cotton during the 1956-57 season (ending August 1, 1957) was estimated at about 27.8 million bales, 1.8 million bales above the record set in the previous marketing year. This supply included a starting carryover of 14.5 million bales, a crop of 13.2 million bales and imports of about 100 thousand bales.

Disappearance of cotton in the United States for the 1956-57 season is estimated to total nearly 16.4 million bales. This is the largest disappearance since the 1926-27 season. Domestic mill consumption for the marketing year just ended was about 8.7 million bales and exports were around 7.7 million bales.

Indications are that the August 1, 1957 carryover was approximately 11.3 million bales. This carryover is comprised of about 1.1 million bales held at mills and 10.2 million bales in public storage and other locations. CCC cotton made up the bulk of public storage stocks with nearly 8.7 million bales. Of this, 3.5 million bales have been sold under Sales Announcement No. C-9 for release to purchasers after August 15, 1957.

Exports

United States agricultural exports climbed to an all time high of $4.7 billion in the 1956-57 fiscal year according to the United States Department of Agriculture. This total is estimated to be 16 percent larger than the previous record of $4.1 billion in 1951-52, and 35 percent above the 1955-56 years total of $3.5 billion. The quantity of exports also set a new record, 31 percent above 1919, the previous high year.

Cotton exports made the largest gain over the preceding year. Cotton alone accounted for 61 percent of the total 1956-57 export valuation gain, with exports of 7.7 million bales, the largest volume exported in any year since 1934 and three and one-half times the 1955-56 exports. The large increase in exports resulted from sales of CCC cotton stocks at competitive world prices.

Exports of cotton from the United States for the 1957-58 marketing year have been estimated to be within a range of 4.5 to 6 million bales. Although exports are expected to decline from the 1956-57 level, they probably will be as large or larger than exports in any other season since 1951-52. This estimate of United States cotton exports is based on preliminary information on the production and consumption of cotton abroad. Small changes in the estimates could cause large changes in United States exports.—**William E. Cathcart.**

FEED

Supplies

Barley and grain sorghum crops are expected to set new records and the oats crop is above the previous year. Grain sorghums probably will show the largest increase of any feed grain crop in 1957. The acreage of sorghum planted for all purposes is one-fourth greater than last year, and sorghum harvested for grain undoubtedly will show a considerable increase. The barley crop is estimated at 18 percent greater than the previous crop and the oats crop is estimated at 19 percent above the 1956 crop.

In contrast to these crops July 1 corn crop estimate was down. The 3.0 billion bushel corn crop estimate of July 1 was the smallest since 1951 although acreage was reduced by the Acreage Reserve Program. Prospects are improved from last year in the western corn belt but the Acreage Reserve Program and wet weather reduced acreage and prospective yields in the eastern corn belt.

Because of the decline in the corn crop, the combined feed grain production is estimated to drop two percent below last year. Stocks of all feed grains may rise about 6 million tons to reach 49 1/2 million tons.

Thus, total supplies for the 1957-58 feeding year will be a new record if the July crop estimates are accurate.

The number of grain-consuming animal units fed in the coming year is expected to be similar to the current year. The feeding of corn probably will decrease but it will be replaced with barley, oats, and small grains. Thus, a considerable increase in feeding of these feeds may occur.

In most areas, pastures and ranges have shown considerable improvement compared with last year. Although some of the hay is rain damaged, the 1957 crop is a record. It is the largest tonnage on record and also the largest in relation to the number of roughage consuming animals. The estimated 120 million tons of hay is 10 percent above the 1956 crop.

Prices

The reduction in the corn crop probably will result in relatively stronger corn prices than for other feed grains. Generally feed grain prices should be closer to the loan levels than in the previous year.—**Kenneth Tefertiller.**

LIVESTOCK AND LIVESTOCK PRODUCTS

Beef Cattle

Cattle Numbers

Cattle inventory estimates as of January 1, 1957, indicated an absolute decrease in numbers for the first time in several years. However, numbers of beef cattle and calves on farms and ranches deflated by population have been gradually retroceding since 1953. If the cycle in cattle numbers per capita continues as it has over the past few decades a low in numbers should be reached by 1958 or 1959. If the low is realized the cattleman will find himself in a position comparable with that of the late 1940's and early 1950's. The price advances will first be reflected in breeding stock prices and will eventually be evidenced in retail beef prices.

Consumer Demand

Preliminary results of recent research at the O.S.U. Agricultural Experiment Station indicate an income elasticity of demand for beef of approximately unity. This is interpreted to mean that a rise in real per capita disposable income of one percent would result in a rise of one percent in the per capita demand for beef, other things equal. With rising personal incomes, this indicates a strong market position for beef during the next few months.

Range Conditions

Range conditions continue good throughout the western range states. Range conditions for the western range states were estimated as

87 percent of normal. This is five percent above the 1946-55 ten-year average. Range conditions for Oklahoma as of July 1 were estimated at 86 percent of normal, an improvement of one percent over the June figure and a considerable improvement (14 percent) over a year ago. Due to lighter rainfall in most parts of Oklahoma during July, range conditions are expected to drop somewhat by August.

Market Conditions

At the Oklahoma City market for the week ending July 26, approximately 53 percent of all marketings were in the stocker and feeder classes. Total marketings of both cattle and calves at Oklahoma City for the week ending July 26 were slightly higher than a year ago. Prices for choice slaughter cattle continued favorable, but feeder and stocker prices are experiencing a normal, seasonal decline. During the week good grade feeder steers sold for $20.00 to $21.00 while good to low-choice slaughter steers sold for $21.00 to $24.00 per cwt. If a drop in range conditions for August is realized, marketings for the coming month should be heavier in the stocker and feeder classes which will result in further movements of prices toward the seasonal low. Hay crops in Oklahoma in 1957 are estimated at about 381,000 tons more than last year. This increase should prove sufficient to avoid fall marketing of cattle of last year's intensity, even though the hay crop is less than the past ten-year average.—**Dudley Wallace.**

Dairy

U. S. production of milk for 1957 is expected to slightly exceed the record production of 1956. Per capita consumption is expected to remain about the same as for 1956. The larger supply of milk will go to the larger population (171 million in July 1957) and to USDA price support programs for use in school lunch and other eligible programs.

Government price support programs are buying about the same amount of butter and nonfat dry milk as last year; however, a larger quantity of cheese is being purchased.

In Oklahoma, milk production is lower than for the preceding year. This lower production started with the "state-wide" floods in May and is continuing through August. It is expected that with normal rain this fall, the autumn production will exceed the 1956 rate. This will establish higher producer base ratings in most Oklahoma fluid milk markets for 1958.

Markets for current dairy production should remain steady in volume and price for late 1957 and early 1958 as consumer income is expected to remain high. High consumer use of milk is closely associated with higher consumer income.

The quality of dairy products offered consumers in Oklahoma is improving over recent years. More fluid milk is being cooled in bulk tanks and at lower temperatures. Milk handlers are processing and marketing larger amounts of grade A milk. Ungraded and raw fluid milk is not purchased by consumers except in a few markets and there only at lower prices.

Milk marketing in Oklahoma is passing through some important trends toward more efficiency in processing and distribution. These trends are:

1. Consumers are more quality conscious, as evidenced by the increasing demand for grade A homogenized milk.
2. There is increased sale of milk in the larger sized containers—especially half gallons.
3. One-half gallon vending machines have been introduced into the Tulsa milk market.
4. Milk receiving stations are giving away to bulk cooling and hauling in some areas.
5. One processor has been on 100 percent bulk tank hauling for over one year and three more are in the process of adopting the program.
6. There is more uniformity in local milk ordinances so that milk can be interchanged in markets.
7. Processing plants are getting larger. Small plants in two areas have been absorbed by nearby larger plants.
8. Milk market orders and cooperative bargaining of milk to plants are expanding.—**A. W. Jacob.**

Sheep, Lambs And Wool

United States

Wool marketings and availability of feeder lambs have captured the spotlight on the national scene at present. The Crop Reporting Board, A.M.S., U.S.D.A. estimates the 1957 wool production at 226,021,000 pounds or three percent less than the 1956 shorn wool production of 232,126,000 pounds. The 1957 production is four percent less than the 1946-55 average. A two percent reduction in number of sheep shorn (drought conditions last fall forced farmers to sell ewes) and a one percent reduction in fleece weight caused this decrease.

Last year, the average wool production per head was 8.52 pounds; this year the average is only 8.44 pounds. The Crop Reporting Board

states that earlier shearing this spring was one factor causing this decrease.

Wool production is up three percent over 1956 in the 35 native states this year due to the larger number of sheep shorn (four percent more than 1956). In the western states, (11 states in the Western Region plus South Dakota and Texas) wool production decreased five percent this year as compared with last year. Nearly one million fewer head of sheep were shorn this year as compared with the number shorn last year. This year, Texas, the leading sheep state, had its smallest wool production since 1927.

In analyzing the feeder lamb situation for this fall and winter, all indications are that good grazing conditions and a plentiful supply of feed will cause more fat lambs to be marketed directly off the range for slaughter. Consequently the supply of feeders will be less. At the same time the demand will be greater because of optimistic outlooks for grazing and feed conditions. Prices of feeder lambs should average considerably higher this fall.

Prospects for a stable spring (milk fed) lamb market for August and September continue to be bright. Prices should average higher for the remaining marketing period this year than they did for the same period last year.

Oklahoma

Estimates by The Crop Reporting Board indicate that 1957 wool production in Oklahoma decreased six percent from last year. The 1957 production is estimated at 1,685,000 pounds as compared with 1,786,000 pounds in 1956. Approximately 203,000 head were shorn this year, or the same as last year. Thus, decreased sheep numbers were not a factor in the wool decrease for Oklahoma as was the case for the United States. The extremely wet shearing season and lack of shearers when conditions were satisfactory for shearing were major factors in the average wool reduction per head for this year. Last year an average of 8.8 pounds per head was shorn; this year the average is only 8.3 pounds per head.

Wool prices have been considerably higher this year than for the 1956 marketing season. Present market indications are that the wool picture will remain bright. Orderly marketing by individuals and cooperatives should result in still higher prices for Oklahoma farmers this fall.

The Oklahoma lamb crop this year averaged only 93 percent as compared with 99 percent last year and a 99 percent average for the period 1946-55. This means a great economic loss of Oklahoma farm flock operators. An extreme drought in the fall, blizzards during the winter, and rain and floods this spring were the major factors in this decrease.

Although nearly all of the milk fed (spring) lamb crop has been marketed by Oklahoma farmers, the present market price is still very satisfactory. Spring lambs did not rise up to the sustained high price peak of last year but the top grades on the Oklahoma City market averaged around 70 cents higher for this July than for July 1956. Also, indications are that the spring lamb market will remain relatively stable and average higher for the remaining months of this year than they did last year. Old ewe prices are $1 to $2 higher this year than last.

Oklahoma farmers who buy feeder lambs for dry lot feeding or grazing on small grain pasture will probably have to pay a higher price for feeders this fall. Recent rains have boosted small grain grazing outlooks for this winter, but this is a long range prospect. More rain around seeding time, will increase small grain grazing opportunities as well as the demand for, and price of, feeder lambs.

For a discussion of fed lamb and spring (milk fed) lamb seasonal price variations and indexes, read the special article in this issue of *Current Farm Economics*.—**Daniel D. Badger.**

Hogs

The packer decision, recently announced by the American Meat Institute, to buy hogs on a "merit" basis apparently is a result of the effects of consumers' lack of interest in the heavy fat type hog produced in past years. It is the first direct industry-wide attempt to encourage producers to market a hog with a greater proportion of lean meat attractive to Mrs. Consumer at the meat counter.

Trend in Size of Pig Crops

Both changes in consumer demand as well as changes in cost of pork production have contributed to shifts away from hog production. Figure 1 indicates the nautre of the trend in pig crops since 1930. While the trend for both U. S. and Oklahoma has been downward since about 1940, Oklahoma pig crops have declined much more sharply than have U. S. pig crops. This suggests that premiums for high grade meat type hogs may need to be higher in some areas than in others to encourage production of this type of pork product. Oklahoma is likely to be one such area. The movement out of the hog enterprise in Oklahoma, as evidenced by the decline in total pig crops since about 1940, has been a result of many factors. No single factor has been responsible. For Oklahoma this trend is not likely to be checked over night but a premium price for meat type hogs commensurate with Oklahoma cost of production conditions, (including costs of producing alternative crops or livestock) might be of some help. Farmers too must look for lower cost production methods if they expect to produce on a highly competitive market.

U. S. 1957 Pig Crops

The 1957 spring pig crop is currently estimated at 53,170,000 head. This is about the same as last year's crop. The number of pigs saved per litter averaged 7.12 which established a new record for spring farrowings. The 1957 spring pig crop was farrowed from 7,466,000 sows as compared with 7,665,000 sows in 1956.

Reports on breeding intentions indicate that 5,308,000 sows will farrow this fall. This would be almost two percent more than last fall. The fall pig crop would be about 37,000,000 head which is two percent more than were farrowed in the fall of 1956.

The combined spring and fall pig crops would bring the estimated total for the year to 90,170,000 head saved. A crop this size would be about one percent above both 1956 and the 1946-55 average.

The trend toward earlier spring farrowing is continuing as December, January and February accounted for about 32 percent of the total spring crop. This is about the same as for 1956 but 13 percent greater than the 1945-54 average.

Oklahoma 1957 Pig Crops

Oklahoma farmers saved an estimated 366,000 pigs from the spring pig crop this year. This compares with 428,000 pigs saved from the spring pig crop in 1956.

If farmers farrow 45,000 sows in the fall of 1957 as planned and if the size per litter squals 6.7 pigs saved, the fall crop could be as large as 302,000 head saved. This would be about 8 percent smaller than the 328,000 head saved in the fall of 1956 and about 38 percent smaller than the 1946-55 average of 484,000 head saved.

Slaughter

U. S. commercial hog slaughter for January-June this year totaled about 10 percent or 4 million head less than for the corresponding period in 1956. Slaughter will likely reach a low point by mid-August and then begin to pick up some as early spring farrowed pigs begin to move to market. During the fall months, slaughter may follow the pattern of a year earlier reaching a peak in November or early December.

In Oklahoma, the January-June hog slaughter totaled 415,000 head. This is a reduction of 115,000 head from the large kill of 570,000 head for this same period in 1956.

Prices

Monthly average hog prices in the U. S. have been climbing in recent months. The July 15 average price of $19.30 per cwt. is sharply

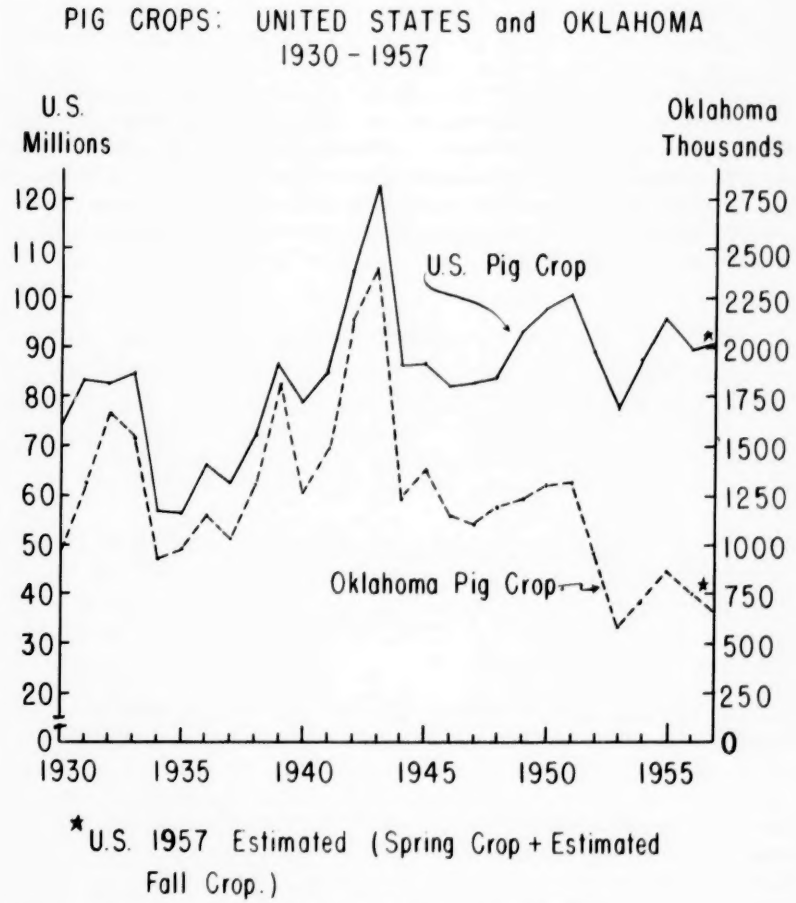

Figure 1. Pig Crops: United States and Oklahoma, 1930-1957.

Source: 1930-54 Pig Crops—By States, USDA Sta. Bul. No. 187, July, 1956 and 1955-57 Pig Crop Report, Oklahoma Crop and Livestock Reporting Service, AMS, USDA, June 1, 1957

above the $15.20 per cwt. on July 15, 1956 and is well above the $18.40 per cwt. reported on June 15 this year.

Average hog prices in Oklahoma on July 15 this year averaged $19.30 per cwt. This compares with $15.40 per cwt. for this month in 1956 and $18.70 per cwt. on June 15 this year. Hog prices should reach their peak by August 15 and begin to fall as early spring farrowed pigs begin to come on the market.

Farmers in certain areas may have become quite cautious in their pork production plans for the fall of 1957 because of reduced spring slaughter and uncertain feed conditions. Also, the fall of 1955 has not been forgotten. Because of this caution and in spite of a tendency for consumers to discount pork relative to beef, hog prices this fall could remain well above the fall prices of 1956. Hog numbers are not high even in relation to the downward trend of pork consumtpion although the amount of expansion is limited. Consumers will eat pork if the price is favorable and if the product is fairly "lean" in relation to other meats.—**Kenneth B. Boggs.**

Poultry

Low price levels for eggs in Oklahoma that have prevailed throughout the spring and summer (about 24 cents per dozen) will be replaced by a higher seasonal price level this fall and winter. There is a strong possibility that egg prices during the first half of 1958 will be more favorable than in the coming fall months.

The gyrations in seasonal prices are determined primarily by changes in supplies of eggs. The demand for eggs tends to be inelastic, that is, the amount consumed or taken from the market place does not vary in proportion to price. Thus small increase in supply brings about a large decrease in price.

In 1954 and again in 1956, egg supplies were large and prices averaged low in the summer months. These low prices were followed by relatively small seasonal price increases during the fall months. At the same time, there was a little incentive for expansion of flocks. In contrast, egg supplies were relatively small in 1953 and 1955 and the seasonal fall price increases were larger. The larger price increases encouraged an increase in the number of chickens raised for flock replacement the following year.

This year, chickens raised, primarily for flock replacement, have decreased 20 percent from the 485 million raised in 1956. It is not likely that the 20 percent decrease in chickens raised will bring about a proportionate reduction in the number of pullets on farms. Even though a larger percentage of those raised will be kept than usual, numbers on farms will decline from the 252 million pullets on January 1, 1957.

The number of layers on farms January 1, 1958 can be expected to re-establish the downward trend in number of hens and pullets on farms. The decline in numbers has continued since the peak of 582 million reached January 1, 1944. The trend was broken by slight increases in 1946, 1950, and in 1957. The increase in 1957 was not needed to sup-

ply the market demand since per capita consumption continued to decline and rate-of-lay continued to increase.

It is estimated that at least a 5 percent reduction (about 20 million from 392 million head in 1957) in the number of layers on farms January 1, 1958 will be needed to reduce the supply of eggs sufficiently to re-establish egg prices at a favorable price level throughout the year of 1958. A somewhat greater reduction than 5 percent would likely result in a substantial price increase which would encourage an expansion in the number of layers for 1959 which would result in another year comparable with 1957.

The egg-feed price ratio increased slightly from 7.4 for June to 7.5 in July. This will continue to improve (increase) as egg prices advance seasonally. Feed costs, which comprise from 60 to 70 percent of egg production, may increase slightly if proteins become scarce as a result of the reduction in the cotton supply. Grain cost may became more plentiful thereby reducing the total feed cost.

Storage stocks of hens (chickens) were the second highest on record, 42 million pounds. Supplies are increasing seasonally which will reach a peak in September and October at the time turkeys start moving to the market in large numbers. Slaughter of hens throughout the first half of the year was as much as 35 percent above 1956. The increase in slaughter is generally associated with unfavorable egg prices and would taper off somewhat if egg prices improved. Low farm prices, 7 to 9 cents in many local markets, have increasd farm consumption and no doubt caused the June and July slaughter to decline below the 1956 level.

Broiler output has tended to follow the 1956 pattern very closely. The April and May chick placements in the 22 principal broiler producing states were 0.2 and 2.3 percent above the same months in 1956. These chicks are now being marketed at 21 cents which corresponds with average prices paid for the same quantity in 1956. However, producers increased replacements 16 percent in June and 13 percent in July as compared with the same months in 1956. These broilers will be marketed during August and September. It was in August of 1956 that the broiler market collapsed under the large supply and averaged about 16 cents a pound from September through December. In view of the June and July increases and the coming record turkey crop, it does not appear that the market will take the expected increase in output at the present prices. A decrease in output is needed to support prices at current levels.

Turkey producers are planning to market from 3 to 5 percent more birds than they did last season when 77 million were produced. This year's crop of birds will be composed of a larger percentage of the heavy breeds than was the case in 1956. Storage stocks are high, 97 million

pounds compared with 41 million on June 1. New York City quotations for frozen heavy toms are below last year by as much as 20 cents per pound. Young hens have sold for as much as 7 to 8 cents below the 1956 price of 27-28 cents.—**K. C. Davis.**

SEASONAL VARIATION AND DIFFERENTIALS IN THE PRICES OF SPRING LAMBS AND LAMBS

by Daniel D. Badger*

A knowledge and understanding of seasonal price movements for spring lambs and lambs is an important step in a sheep producer's program for improving his production planning and marketing decisions. Movements of prices within one year or one marketing season are called seasonal price variations. Prices of lambs, as well as many other farm products, follow a fairly regular seasonal pattern because of the seasonal nature of production, and to a lesser extent because of seasonal variations in demand for the products.

The usual seasonal pattern, together with current information as to size of crop, price trends, and cyclical movements, are valuable aids in the farmer's decision as to timing of sale for greatest net farm income.

Spring Lambs

"Spring Lamb" as used here is the market term for a milk-fed lamb or a lamb which is sold directly off the ewe. However, it may have been fed grain and hay in a creep-feeding program. Spring lambs are marketed mostly during the period from March to October, with the peak marketing period normally during May and the first two weeks of June on the Oklahoma City market.

Lambs

"Lamb" as used here, designates a dry-lot fed or small grain fed lamb, or one fattened by any other combination of feeding. A lamb is usually older than a spring lamb, and has been away from the ewe for a period prior to being marketed.

Market Studied

Basic price data from the Oklahoma City livestock market were obtained. This is the market used by many Oklahoma farmers and is representative of the prices received by farmers for spring lambs and lambs. Weekly price quotations for both the lamb and spring lamb grades were available from this market.

Although some North Central Oklahoma producers use Wichita, Enid, and other local-point markets, Oklahoma City can be used as a basis for predicting seasonal movements regardless of the market ordinarily used.

*Graduate Research Assistant, Department of Agricultural Economics.

Period Selected for Analysis

The analysis utilized data for the ten-year period 1947-48 to 1956-57. The calendar year marketing season was used for spring lambs. The October to April marketing year was used instead of a calendar marketing year for fed lambs since there is a break in the marketing of fed lambs over the summer months. Because of insufficient marketing volume for the choice and prime lamb grade during the 1956-57 season. only the nine-year period 1947-48 to 1955-56 was available for this grade.

This period appears to give an adequate representation of past lamb and spring lamb marketings. It includes years of high prices, low prices, and moderate prices and is long enough to establish a seasonal trend.

Computational Procedure

The monthly average prices were derived from weekly quotations from the weekly *Livestock News*, published by the Livestock Division, AMS, U.S.D.A., Oklahoma City, Oklahoma. The seasonal indexes were obtained by the procedure outlined in Agriculture Handbook Number 48.[1]

Seasonal Variation in Lamb and Spring Lamb Prices

Lamb and spring lamb prices reach a seasonal peak during the spring months because of the greater demand, particularly during the Easter season, and because of the smaller quantity marketed in the U. S. as a whole during this period. During the fall months, demand is weaker and the volume of lambs placed on the market is greater. This results in a seasonal low in price for both lambs and spring lambs.

Figure 2 and Tables 5 and 6 indicate the seasonal variation for the choice and prime grades and for the good and choice grades of both spring lambs and lambs. Lamb prices reached a seasonal peak in April and fell to a seasonal low in December. The range in variation between the high and low months was 12 percent of the annual average for the choice and prime grade and 15 percent of the annual average for the good and choice grade. The pattern of movement was similar for the two grades, although the lower grade exhibited a slightly greater degree of seasonal variation.

Spring lamb prices reached a seasonal high in May and a low in September, and the seasonal price difference was significant. The range in seasonal variation between the high and low months was 20 percent of the annual average for the choice and prime grade and 21 percent of the annual average for the good and choice grade. As with the lamb grades, there appeared to be no significant difference between the two grades of this class as far as patterns were concerned.

[1] Karl A. Fox and R. J. Foote, *Seasonal Variation: Methods of Measurement and Tests of Significance*, U.S.D.A., B.A.E., Washington 25, D.C., Sept. 1952.

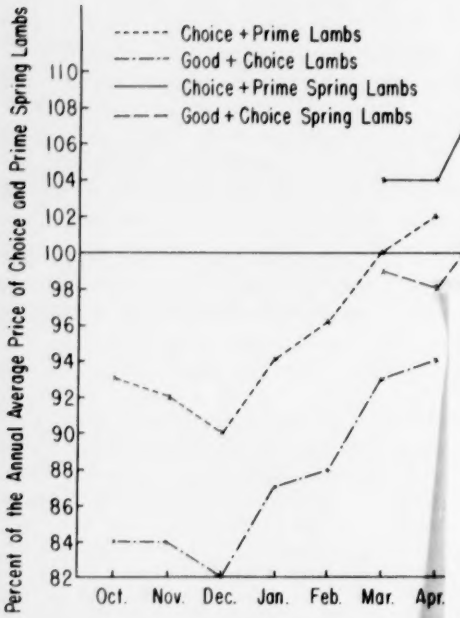

Figure 2. Normal index of seasonal variation f lambs, Oklahoma City market, based o and prime lambs based on 9-year pe significant seasonal price movement a classes. The pattern of movement is class, although there is slightly more variation in the lower (good and choice) grade of each class.

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Class and Grade Differences

Lamb feeders usually have some choice in the condition and type of feeder lambs they buy and also in fattening the lambs for the slaughter market. Several feeds could be considered in finishing the lambs to various grades and weights. Farm-flock producers also have some choice in the finishing of their milk fed or spring lambs. By utilizing pasture, hay and grain they usually can determine the finish and grade the lamb will attain before market time. The relative prices of the various grades and classes will be one factor in determining the profitability of a given finish and grade.

Figure 3 shows relative monthly price differentials of various classes and grades. The annual average price of the highest price grade, choice

and prime spring lambs, is used as the base and the other three grades are expressed as percentages of this base. It should be emphasized that the price differentials shown in Figure 3 are typical or normal relationships for the ten-year period, and that the relationships between these grades and classes for any given year may deviate somewhat from normal.

There was a significant price spread between the grades of a particular class, although the seasonal pattern was similar for both grades (Figure 3). The good and choice grade of lambs averaged 7 to 9 percent below the choice and prime grade. The range was from 82 percent of the
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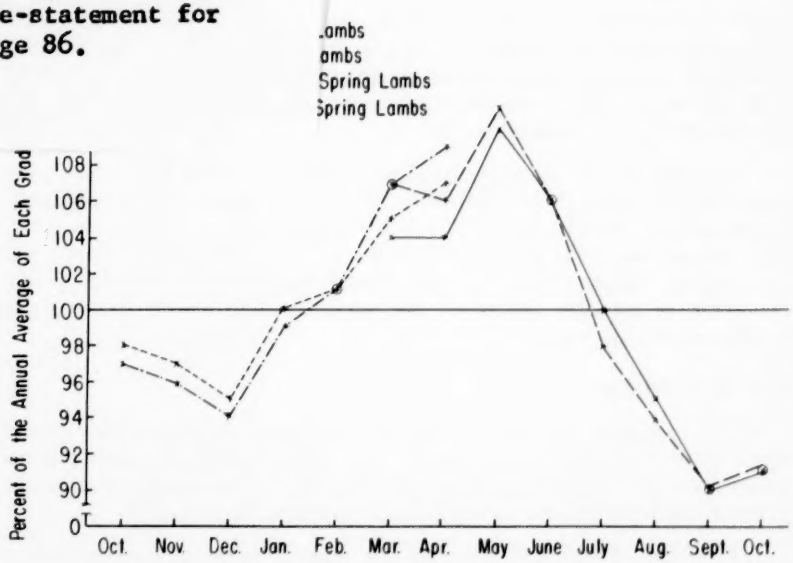

Figure 3. Seasonal variation by class and grade with choice and prime spring lambs as the base grade and the other three grades expressed as a percentge of the base grade. The significant seasonal price movement is shown for the four classes, as well as the relationship between the two grades and four classes. There is more variation in spring lamb prices than in lamb prices.

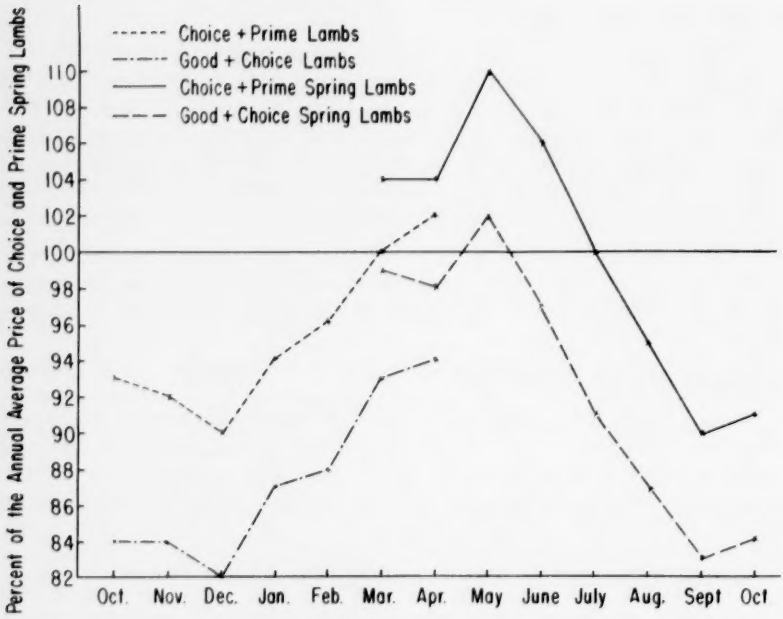

Figure 2. Normal index of seasonal variation for two grades of lambs and spring lambs, Oklahoma City market, based on the 10-year period 1947-56 (choice and prime lambs based on 9-year period 1947-48 to 1955-56). There is a significant seasonal price movement associated with the above grades and classes. The pattern of movement is similar for the two grades of each class, although there is slightly more variation in the lower (good and choice) grade of each class.

Class and Grade Differences

Lamb feeders usually have some choice in the condition and type of feeder lambs they buy and also in fattening the lambs for the slaughter market. Several feeds could be considered in finishing the lambs to various grades and weights. Farm-flock producers also have some choice in the finishing of their milk fed or spring lambs. By utilizing pasture, hay and grain they usually can determine the finish and grade the lamb will attain before market time. The relative prices of the various grades and classes will be one factor in determining the profitability of a given finish and grade.

Figure 3 shows relative monthly price differentials of various classes and grades. The annual average price of the highest price grade, choice

and prime spring lambs, is used as the base and the other three grades are expressed as percentages of this base. It should be emphasized that the price differentials shown in Figure 3 are typical or normal relationships for the ten-year period, and that the relationships between these grades and classes for any given year may deviate somewhat from normal.

There was a significant price spread between the grades of a particular class, although the seasonal pattern was similar for both grades (Figure 3). The good and choice grade of lambs averaged 7 to 9 percent below the choice and prime grade. The range was from 82 percent of the annual average price of choice and prime spring lambs in December to 94 percent in April. This compares with the choice and prime grade of lamb which varied from a low of 90 percent of the choice and prime spring lamb grade in December to a high of 102 percent in April.

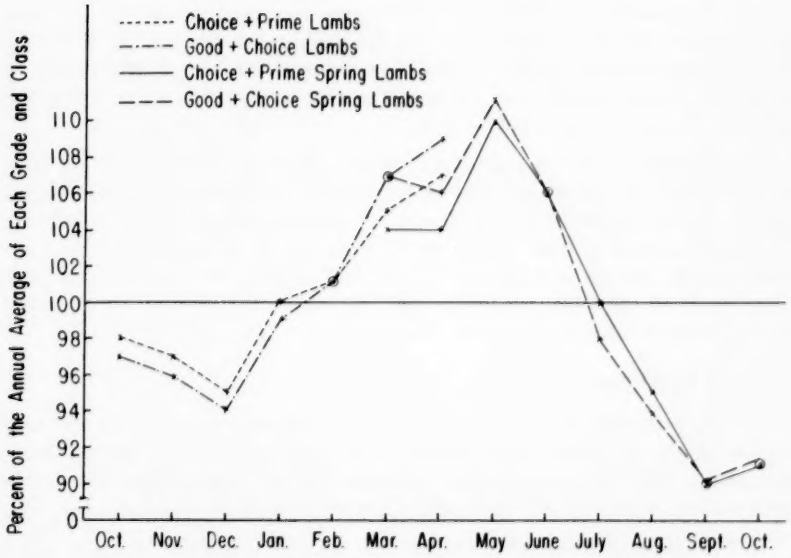

Figure 8. Seasonal variation by class and grade with choice and prime spring lambs as the base grade and the other three grades expressed as a percentge of the base grade. The significant seasonal price movement is shown for the four classes, as well as the relationship between the two grades and four classes. There is more variation in spring lamb prices than in lamb prices.

There was more variation in spring lamb prices than in lamb prices. For example, the December price of good and choice lambs was only 82 percent of the annual average price of choice and prime spring lambs as compared with 94 percent in April. Similarly, the December price of choice and prime lambs was 90 percent of the annual average price of choice and prime spring lambs as compared with 102 percent in April.

Dependability of Seasonal Indexes

The indexes for lamb and spring lamb prices describe the most common seasonal pattern. It is the "normal" or the seasonal pattern most likely to occur in a given year. However, actual price or production seldom follows a normal seasonal pattern exactly. Any number of factors, including consumption per capita, production, general price levels, and prices of competing meats can influence the marketing and the resulting prices in a particular year. But actual prices are approximately repeated in enough years to be valuable in the anticipation of price changes for the short run future. This information, though not perfect, will enable the farmer to make better management decisions as to what grade to produce, and when to market his lamb or spring lambs.

One measure of the dependability of the monthly indexes is the index of irregularity which is based on the standard deviation. By both *adding* this index of irregularity to the seasonal index and *subtracting* it from the seasonal index, an estimated range (high and low value) is obtained within which two-thirds of the year-to-year prices for the given months would be expected to fall.

In Table 6, for example, the May index of 110.1 for choice and prime sprinb lambs means that in an average or typical year, choice and prime spring lambs in May will sell for approximately 10 percent more than the annual average price. With an index of irregularity of 7.3 for this month, we get a range of from 117.4 (high) to 102.8 (low), and two-thirds of the May prices for the period studied would be expected to fall within this range.

Use of Findings

The producer can refer to the normal seasonal pattern as the best single guide to future price trends. The peak period for spring lamb prices has typically been in May with the low in September. For lambs prices have been highest in April and lowest in December.

The typical seasonal patterns are seldom followed precisely in a given year. Thus, each producer needs to use other current information in arriving at his judgment of the price outlook for lambs and spring lambs at a particular time. Market news reports provide an almost continuous record of marketings and prices from the major U. S. mar-

kets, including the Oklahoma City market. Reports on the lamb crop provides vital information that indicate prospective marketings 5 or 6 months from now. Publications such as *Oklahoma Current Farm Economics,* and the U.S.D.A.'s *Livestock and Meat Situation,* describe trends and developments, both current and anticipated, in slaughter lambs, feeder lambs, ewes, and wool, as well as for other classes of livestock.

Such information can be used to anticipate yearly modifications of normal seasonal patterns so that producers expectations of trends a month or a season ahead can be adjusted to the specific conditions of that season.

Table 1.—Prices Received by Farmers for Oklahoma Farm Products.
(Dollars)

		Wheat	Corn	Oats	Barley	Rye	Grain sorghum	Cotton-lint	Cotton-seed	Sweet potatoes	Soybeans	Peanuts	Alfalfa seed
1955		2.09	1.41	.75	.98	1.10	1.14	.295	52.33	2.75***	2.20	.116	14.25
1956		2.00	1.39	.74	.94	1.12	1.13	.286	50.67	2.80***	2.21	.111	11.60
	July	1.88	1.46	.64	.84	1.05	1.18	.295	48.00	**	2.35	.110	11.40
	Aug.	1.94	1.46	.72	.90	1.08	1.23	.303	49.00	3.60	2.25	.110	11.58*
	Sept.	1.98	1.40	.77	.96	1.21	1.18	.280	52.00	3.00	2.00	.105	12.00
	Oct.	2.02	1.40	.80	1.02	1.25	1.20	.285	55.00	3.10	1.95	.115	12.24
	Nov.	2.07	1.40	.88	1.10	1.25	1.26	.274	60.00	2.80	2.10	.110	12.60
	Dec.	2.08	1.41	.91	1.14	1.29	1.26	.265	63.00	2.90	2.15	.106	12.60
1957	Jan.	2.08	1.45	.91	1.14	1.25	1.26	.262	63.00	3.20	2.20	.108	12.90
	Feb.	2.04	1.41	.91	1.14	1.16	1.23	.270	61.00	2.90	2.20	.110	12.84
	Mar.	2.08	1.39	.89	1.10	1.15	1.22	.285	59.00	2.85	2.20	.110	13.50
	Apr.	2.05	1.40	.84	1.04	1.13	1.19	.288	* *	* *	2.20	.110	12.90
	May	1.95	1.42	.78	.98	1.08	1.13	.284	* *	* *	2.20	.110	12.30
	June	1.89	1.38	.63	.78	.95	1.08	.284	* *	* *	2.15	.110	**
	July	1.92	1.41	.62	.75	.94	1.06	.287	* *	* *	2.20	.110	**

		All hay	Alfalfa hay	Wild hay	Cattle	Calves	Sheep	Lambs	Hogs	Wholesale milk	Butterfat	All chickens	Eggs	Turkeys
1955		22.92	26.90	18.19	14.09*	16.62*	5.59*	18.42*	16.08*	4.42*	.52	.215*	.332	.258
1956		23.93	28.92	19.09	13.32	15.97	5.11	18.71	14.44	4.52	.52	.174	.332	.247
	July	19.80	25.50	15.30	13.70	15.80	4.50	19.90	15.90	4.30*	.52	.176	.278	.220
	Aug.	22.70	28.00	18.40	13.60	15.50	4.50	18.80	15.80	4.40	.52	.180	.291	.240
	Sept.	26.20	32.00	21.00	13.00	15.50	4.50	18.30	15.40	4.60	.52	.154	.350	.240
	Oct.	29.80	36.50	25.00	12.20	15.00	4.50	17.60	15.10	4.75	.52	.150	.310	.240
	Nov.	31.10	37.50	26.80	12.30	15.00	5.00	17.10	14.20	4.85	.53	.155	.317	.240
	Dec.	31.60	38.50	27.50	12.50	15.00	5.00	16.80	15.80	4.80	.53	.148	.350	.250
1957	Jan.	31.70	38.00	28.00	13.30	15.80	6.00	17.40	16.70	4.70	.52	.152	.320	.240
	Feb.	32.00	38.50	28.00	14.00	16.10	6.00	17.80	16.50	4.55	.52	.164	.285	.230
	Mar.	27.70	36.00	25.00	14.50	16.50	6.50	19.30	16.70	4.30	.52	.163	.240	.230
	Apr.	25.50	32.50	22.50	15.70	17.50	6.50	20.70	17.40	4.15	.52	.162	.245	.230
	May	21.80	25.80	20.10	15.80	17.30	5.90	21.00	17.60	3.95*	.52	.165	.247	.230
	June	18.60	21.20	18.40	15.90	17.40	6.00	19.90	18.70	4.10	.51	.163	243	220
	July	19.10	23.00	16.50	16.40	17.70	6.40	19.50	19.30	4.35	.51	.160	.248	.220

SOURCE: *Prices Received by Farmers*, Agricultural Marketing Service, U.S.D.A., Oklahoma City, Oklahoma, Monthly Releases or *Agricultural Prices*, A.M.S., U.S.D.A., Washington, D. C.
* Revised. ** Data not available. *** 9 months average.

Table 2.—Index Numbers of Prices Received by Farmers for Oklahoma Farm Products.[1]
(Percent of 1910-14 Average)

		Wheat	Corn	Oats	Barley	Rye	Grain sorghums	Cotton-lint	Cotton-seed	Sweet potatoes	All hay
1955		244	217	166	167	128	168	268	267	223***	260
1956		233	214	165	159	130	166	253	259	227***	271
	July	219	225	142	142	122	173	261	245	**	224
	Aug.	226	225	160	153	125	181	268	250	289	257
	Sept.	230	215	171	163	141	173	248	266	244	297
	Oct.	235	215	178	173	145	176	252	281	252	338
	Nov.	241	215	196	187	145	185	242	307	228	353
	Dec.	242	217	202	194	151	185	235	322	236	358
1957	Jan.	242	223	202	194	145	185	232	322	260	359
	Feb.	237	217	202	194	135	181	239	312	236	363
	Mar.	242	214	198	187	134	179	252	301	232	314
	Apr.	238	215	187	176	132	175	255	* *	* *	289
	May	227	218	173	166	125	166	251	* *	* *	247
	June	220	212	140	132	111	159	251	* *	* *	211
	July	223	217	138	127	110	156	254	* *	* *	217

		Cattle	Calves	Sheep	Lambs	Hogs	Wholesale milk	Butterfat	All chickens	Eggs
1955		292*	278*	122*	316*	228*	229	221	229*	186
1956		276	268	110	321	205	234	224	185	187
	July	284	265	97	341	226	223*	222	187	156
	Aug.	282	260	97	323	224	228	222	191	163
	Sept.	269	260	97	314	219	238	222	164	197
	Oct.	253	251	97	302	214	246	222	160	174
	Nov.	255	251	108	293	202	251	226	165	178
	Dec.	259	251	108	288	224	249	226	157	197
1957	Jan.	275	265	130	299	237	243	222	162	180
	Feb.	290	270	130	305	234	236	222	174	160
	Mar.	300	276	141	331	237	223	222	173	135
	Apr.	325	293	141	355	247	215	222	172	138
	May	327	290	127	360	250	205*	222	176	139
	June	329	291	130	341	266	212	218	173	137
	July	340	296	138	334	274	225	218	170	139

SOURCE: Compile by Dept. of Agri. Econ., Oklahoma State University, from data supplied by Agricultural Marketing Service, U.S.D.A., Oklahoma City, Oklahoma and Washington, D. C.
For previous years, see Oklahoma Agri. Exp. Sta. Bul. 238, *Oklahoma Farm Price Statistics* and *Current Farm Economics*, Okla. Expt. Sta. series 49, Vol. 13, Nos. 1 and 2, Feb.-Apr., 1940. Tables 16-19, and subsequent issues.

[1] For the index of purchasing power of a unit of an individual commodity in terms of commodities used in farm production and family living, divide the index of price received by Oklahoma farmers (in this table) by the index of prices paid by United States farmers (in Table 4) for the same month and multiply by 100.

* Revised. ** Data not available. *** 9 months average.

Table 3.—Price Indexes of Groups of Oklahoma Farm Products.
(Percent of 1910-14 Average)

		All commodities	Total crops	Grain	Cotton & cottonseed	Misc. crops	Total livestock and L. S. products	Meat animals	Dairy products	Chickens and eggs
1955		253	255	233	268	237	250	274*	224*	198*
1956		241	243	224	254	247	237	256	228	186
	July	240	241	214	259	170	239	267	224	165
	Aug.	247	250	220	266	265	239	265	224	171
	Sept.	240	241	223	250	284	237	255	228	188
	Oct.	240	246	227	255	317	226	242	230	170
	Nov.	239	245	233	249	322	226	240	235	175
	Dec.	240	242	234	244	328	234	249	234	186
1957	Jan.	241	241	235	241	335	240	264	229	175
	Feb.	243	243	231	246	332	243	273	227	164
	Mar.	248	250	233	257	294	245	282	222	145
	Apr.	237	229	230	229	219	256	302	211	147
	May	233	223	220	225	187	258	304	216*	149
	June	231	219	212	225	159	260	309	216	147
	July	235	222	215	228	164	267	319	220	148

Purchasing Power Indexes[1] of Groups of Oklahoma Farm Products
(Percent of 1910-14 Average)

		All commodities	Total crops	Grain	Cotton & cottonseed	Misc. crops	Total livestock and L. S. products	Meat animals	Dairy products	Chickens and eggs
1955		89	89	82	94	83	87	96	78	69*
1956		84	84	78	88	85	82	89	79	65
	July	83	83	74	89	59	82	92	77	57
	Aug.	85	86	76	91	91	82	91	77	59
	Sept.	82	83	77*	86	98*	81	88*	78	65*
	Oct.	82	85	78	88	109	78	83	79	58
	Nov.	81	83	79	85	110	77	82	80	60
	Dec.	81	82	79	83	111	79	84	79	63
1957	Jan.	82	82	80	82	114	81	89	78	59
	Feb.	82	82	78	83	112	82	92	76	55
	Mar.	84	84	78	87	99	82	95	75	49
	Apr.	80	77	77	77	73	86	101	71	49
	May	78	75	74	75	63	86	102	72*	50
	June	77	73	71	75	53	87	103	72	49
	July	79	74	72	77	55	90	107	74	50

SOURCE: Compiled by Dept. Agri. Econ., Oklahoma State University, from data supplied by Agricultural Marketing Service, U.S.D.A., Oklahoma City, Oklahoma, and Washington, D. C.

[1] The ratio of prices received by farmers to prices paid by farmers for commodities used in farm living and production. For individual commodities see footnote 1 of Table 2.

* Revised.

Revised.

Table 4.—Index Numbers in the United States, Index of Demand Deposits in Oklahoma, and Oklahoma Price Ratios.

		United States index numbers of:					Oklahoma price ratios[4]			
		Prices received by farmers (1910-14=100)	Prices paid by farmers (1910-14=100)	Wholesale prices (1910-14=100)	Factory payrolls[1] (1947-49=100)	Index of demand deposits in Oklahoma[2 3] (1923-25=100)	Hog corn	Egg feed	Turkey feed	Milk feed
1952		288	288	250	136.6*	293.2	10.20	8.9	7.0	1.533*
1953		258	284	247	151.4*	289.3	14.04*	11.2	7.6	1.520
1954		250	286	247	137.7*	289.3	15.15	8.6	7.4	1.479*
1955		236*	286	248	152.5*	291.3	11.43	9.5	7.4	1.600*
1956		236	289	256	161.3	297.4	10.35	9.7	7.2	1.680
1956	July	244	290	256	150.5*	304.8	10.55	8.2	6.5	1.659*
	Aug.	237	291	258	161.5*	300.8	10.82	8.4	6.9	1.619
	Sept.	236	291*	258	166.7*	301.1	11.00	10.1	6.9	1.687
	Oct.	234	291	258	169.0*	301.6	10.79	8.9	6.9	1.740
	Nov.	234	294	261	168.2*	303.2	10.14	8.9	6.8	1.708
	Dec.	237	295	261	171.4*	300.1	11.21	9.8	7.0	1.653
1957	Jan.	238	295	263	165.5*	300.5	11.52	8.9	6.7	1.607
	Feb.	234	297	263	165.0*	288.0	11.70	8.1	6.5	1.567
	Mar.	238	297	263	164.3	284.6	12.01	6.8	6.5	1.499
	Apr.	242	298	263	161.5	290.1	12.43	6.9	6.5	1.467
	May	243	299	263	160.9	286.3	12.39	7.2	6.7	1.441*
	June	244	299	263	----	287.2	13.55	7.4	6.7	1.617
	July	247	298	265	----	----	13.69	7.5	6.6	1.712

SOURCE: Indexes of U. S. prices received and prices paid by farmers and indexes of U. S. wholesale prices, from *Agricultural Prices*, A.M.S., U.S.D.A., Washington, D. C. Indexes of demand deposits in Oklahoma, calculated by Dept. Agri. Econ., Okla. Agri. Exp. Sta. from data furnished by Federal Reserve Board, Washington, D. C. Indexes of factory payrolls, from U. S. Department of Labor, Bureau of Labor Statistics, Washington, D. C.

[1] Unadjusted for seasonal variation.

[2] Demand deposits of Oklahoma member banks of the Federal Reserve System located in places under 15,000 population.

[3] Index numbers based on net demand deposits prior to 1936 and upon gross demand deposits since that date. For a discussion of this index see CURRENT FARM ECONOMICS, Oklahoma Agricultural Experiment Station Series 49, Vol. 13, Nos. 1 and 2. Feb.-Apr., 1940. p. 41.

[4] The number of bushels of corn or pounds of feed which one unit of the commodity (100 pounds of hogs, one dozen eggs, one pound of turkeys or milk) will purchase. Prices used are the official A.M.S. estimates of prices received by Oklahoma farmers except for commercial feeds or ingredients which are official A.M.S. estimates of prices paid by Oklahoma farmers. These ratios are computed on the basis of fixed rations and are not directly comparable with ratios computed from other rations. The composition of each ration used is available upon request.

*Revised

Table 5.—SEASONAL PATTERNS OF THE PRICE OF LAMBS ON THE OKLAHOMA CITY MARKET

Month	Choice and Prime*				Good and Choice*			
	Index of Seasonal Price	Index of** Irregularity	Range		Index of Seasonal Price	Index of** Irregularity	Range	
			High	Low			High	Low
October	98.0	6.6	104.6	91.4	96.7	6.7	103.4	90.0
November	97.3	5.1	102.4	92.2	96.3	5.0	101.3	91.3
December	95.1	4.8	99.9	90.3	94.1	5.1	99.2	89.0
January	99.6	4.4	104.0	95.2	99.0	5.4	104.4	93.6
February	100.8	4.9	105.7	95.9	100.5	5.2	105.7	95.3
March	105.2	8.7	113.9	96.5	106.5	8.1	114.6	98.4
April	107.4	6.6	114.0	100 8	108.9	5 6	114.5	103.3

* Choice and prime grade includes all lambs or spring lambs sold as choice and the top one-half of those quoted at choice. Good and choice includes all the good grade and the bottom one-half of the choice grade.

**Index of Irregularity is one standard deviation and it, with the index of seasonal price, gives a range within which the index would be expected to fall in two out of three years.

Table 6.—SEASONAL PATTERNS OF THE PRICE OF SPRING LAMBS ON THE OKLA. CITY MARKET

Month	Choice and Prime*				Good and Choice*			
	Index of Seasonal Price	Index of** Irregularity	Range		Index of Seasonal Price	Index of** Irregularity	Range	
			High	Low			High	Low
March	103.6	6.6	110.2	97.0	106.9	8.9	115.8	98.0
April	103.7	6.7	110.4	97.0	106.2	7.1	113.3	99.1
May	110.1	7.3	117.4	102.8	110.8	7.4	118.2	103.4
June	106.4	5.2	111.6	101.2	105.5	3.5	109.0	102.0
July	100.0	3.7	103.7	96.3	98.1	5.0	103.1	93.1
August	95.2	5.1	100.3	90.1	94.3	4.8	99.1	89.5
September	90.2	5.7	95.9	84.5	90.2	6.4	96.6	83.8
October	90.6	7.5	98.1	83.1	91.2	7.9	99.1	83.3

* Choice and prime grade includes all lambs or spring lambs sold as choice and the top one-half of those quoted at choice. Good and choice includes all the good grade and the bottom one-half of the choice grade.

**Index of Irregularity is one standard deviation and it, with the index of seasonal price, gives a range within which the index would be expected to fall in two out of three years.

9/57-3½M